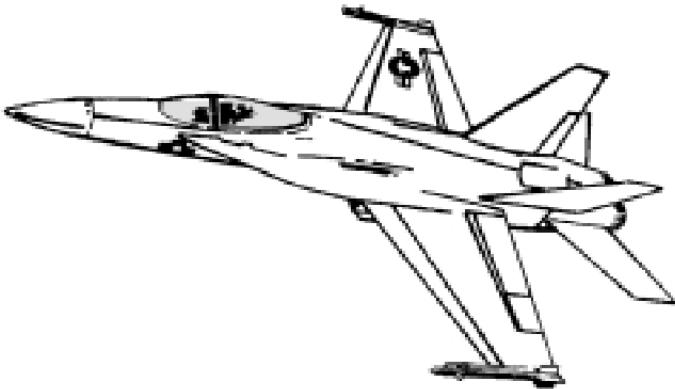

CHANGE NOTICE

A1-F18AE-LWS-270

Conventional Weapons

CHECKLIST
F/A-18
BOMBS
RETARD/NONRETARD



REPRINT

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NATEC ELECTRONIC MANUAL

CHANGES INCORPORATED

Insert latest change pages; destroy superseded pages in accordance with applicable regulations.

Dates of issue for original and change pages are:

Basic0 (IRAC 1-5 Incorporated)	1 Jan 2001
Change1	15 Mar 2002
Change2	15 Aug 2002
Change3	15 Feb 2003

Total number of pages in this checklist is 30, consisting of the following:

<u>Pg. No.</u>	<u>Chg. No.</u>	<u>Pg. No.</u>	<u>Chg. No.</u>	<u>Pg. No.</u>	<u>Chg. No.</u>
Title	3	4	2	8 - 9	2
A.....	3	5	0	10 - 22	0
i.....	0	6 - 6.1.....	3	23	1
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INTRODUCTION

This checklist contains abbreviated procedures to load and unload BOMBS RETARD/NONRETARD on the F/A-18 aircraft.

REQUIRED READING

Loading crewmembers may perform several steps simultaneously provided they do not invalidate or interfere with a preceding or subsequent step and safety precautions are strictly observed.

The steps within this checklist to SAFE racks mean rotation of ground safety handle to the LOCKED position.

Ensure compliance/incorporation of the following Technical Directives, as applicable:

1. None.

RESTRICTIONS:

1. MK 84 Mod 6/7 only with electric fuzing using MK 122 arming safety switch.
2. MK 83 Conical fin: Lot Nos. MTV 88H0001, 002, 003 and 004 are RESTRICTED from "Manual Loading" (HLU-256/Aero 66A Hoisting Bar) in accordance with NAR 557-90.

REQUIRED READING (Continued)

3. The FMU-139B/B, and FMU-152 electric tail fuzes do not require an arming wire.

TEST EQUIPMENT/SPECIAL TOOLS:

1. None.

For specific flight authorization, refer to the Tactical Manual. The procedures █ in this checklist have been verified for the following weapons:

MK 80/BLU Series General Purpose Bombs
BDU-45/B Practice Bomb

AIRCRAFT PREPARATION/INSPECTION

1. Release and Control Systems Check completed()
2. Loaded stations - SAFE()
3. Parent rack configured to load single weapon:
 - a. Cartridges removed()
 - b. Swaybraces adjusted to normal position()
 - c. Suspension hooks open()
4. Parent rack configured with BRU-33:
 - a. Ground safety handle LOCKED()
 - b. Cartridges removed()
 - c. Swaybraces seated()
 - d. Adapter harness connected()
 - e. BRU-33:
 - (1) Cartridges removed()
 - (2) Suspension hooks open()
 - (3) Swaybraces adjusted to normal position()

WEAPON INSPECTION

1. Assembled; NOT damaged()
2. Lugs/fin for alignment/security()
3. Mk 15 Fin (Fig. 1):
 - a. (Retard) Fin release wire installed; band NOT damaged()
 - b. (Retard) Release band safety (cotter) pin/wire removed()
 - c. (NONRETARD) Fin release band safety (cotter) pin/wire installed()
4. BSU-85 Fin (Fig. 2):
 - a. Release lanyard clip and safety latch pin installed()
 - b. Release lanyard swivel stowed in clip()
 - c. Safety pin assembly removed()
 - d. Ensure vent cap open()
5. BSU-86 Fin (Fig. 3):
 - a. Release lanyard safety clip installed; band NOT damaged()
 - b. Release lanyard swivel stowed in clip()
 - c. Release band safety (cotter) pin removed()
6. Conical Fin:
 - a. Fuze access door secure()
 - b. (BSU-33) Fully seated 360° against bomb body()
7. (If applicable) Mk 122 arming safety switch installed()

WEAPON INSPECTION (Continued)

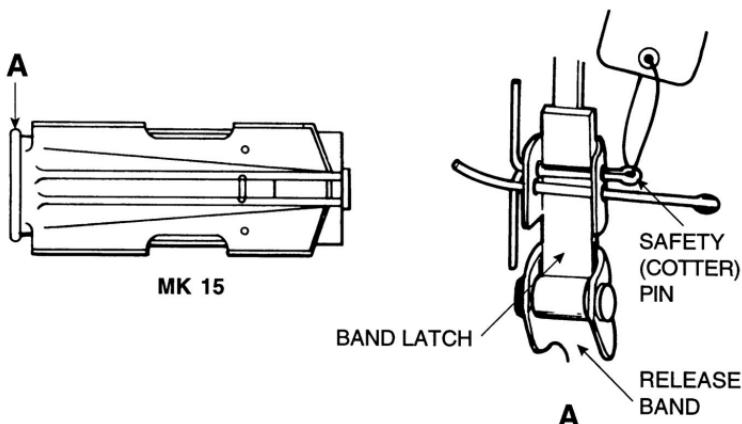


Figure 1. Mk 15 Fin

WEAPON INSPECTION (Continued)

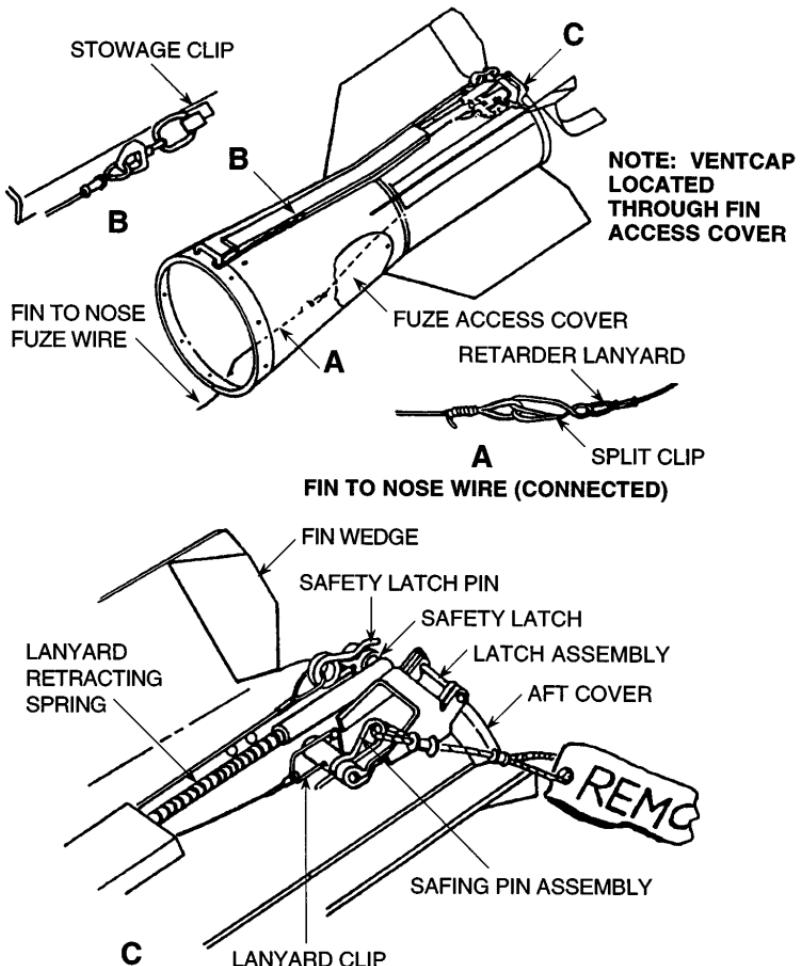


Figure 2. BSU-85 Fin

WEAPON INSPECTION (Continued)

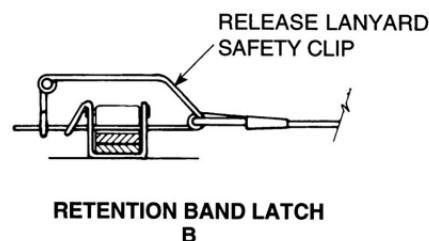
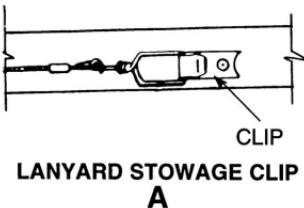
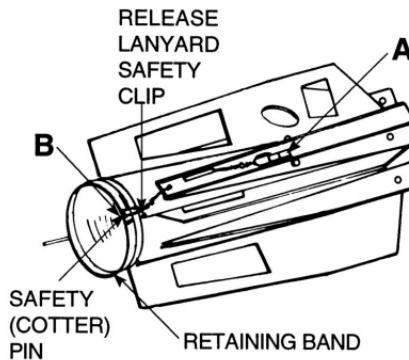


Figure 3. BSU-86 Fin

WEAPON INSPECTION (Continued)

8. (Electric Fuze) Safety (cotter) pin and warning tag removed()

NOTE: THE FMU-139B/B AND FMU-152 ELECTRIC TAIL FUZES DO NOT REQUIRE AN ARMING WIRE.

9. (As applicable) Fuze delay time marked on weapon; arming wire installed()
10. (FMU-139A/B) Two Fahnstock clip installed()
11. (If applicable) BDU-45/B spotting charges installed()
12. (If applicable) Adapter booster installed and fuze cavity clean and NOT damaged()
- 12.1 (DSU-33) Nose fuze cavity NOT damaged; set screw retracted()
13. Fuze:

WARNING

DO NOT ATTEMPT TO DEARM A PARTIALLY OR FULLY ARMED FUZE. NOTIFY PROPER AUTHORITY.

- a. Safe; safety wire installed()
- b. NOT damaged()
- c. Delay element installed/available()
14. TDD:
- a. Safety clip and lock washer installed()
- b. NOT damaged()
15. DSU-33:

NOTE: THE BATTERY PAINTBAND WHEN VIEWED THROUGH THE INSPECTION WINDOW WILL APPEAR A LIGHT COLOR (WHITE OR LIGHT GRAY) IF BATTERY HAS NOT BEEN INITIATED. THE PAINT BAND WILL APPEAR A DARK COLOR (BLACK OR DARK GRAY) IF INITIATION HAS OCCURRED.

- a. Verify battery paint band is not dark in color()

F/A-18

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BOMBS RETARD/
NONRETARD

WEAPON INSPECTION (Continued)

NOTE: MINOR DAMAGE TO DSU-33 BODY BY BOMB
NOSE SET SCREW IS ACCEPTABLE.

- b. Verify no corrosion, fungus, or mechanical damage()
- c. Verify radome NOT cracked or damaged()
- d. Verify electrical connector NOT damaged()

WEAPON LOADING

A. PREPARATION

1. Aircraft Preparation/Inspection and Weapon Inspection completed()
2. (If applicable) Power removed()
3. Aircraft grounded()
4. Armament switches positioned (Table 1)()
5. (Electric Fuze) PP-6419 Power Supply switch - ON()
6. Set proper code in weapons insertion panel (SMP)()
7. Place WEAPON LOADED sign in cockpit()

B. LOADING

1. Raise weapon; (if applicable) install arming adapter; latch suspension hooks; ensure hooks support weapon and swaybraces seat()
2. Safe rack()
3. (Mk 122) Electrically connect and attach lanyard()
4. (As applicable) Nose fuze arming delay set; delay element installed()

NOTE: (DSU-33) SENSOR MAY NOT FIT FLUSH WITH FUZE WELL, APPROXIMATELY 1/4 INCH GAP BETWEEN SENSOR AND BOMB NOSE IS ACCEPTABLE.

5. Install nose fuze/TDD()
- 5.1 (DSU-33) Install sensor in nose fuze well hand tight and tighten nose set screw to 30-35 in-lbs. torque or 1/2 to one turn after contact with DSU-33()

WARNING

FIN TO FUZE ARMING WIRE MUST BE INSTALLED WHEN USING M904 MECHANICAL NOSE FUZE AND ELECTRIC TAIL FUZE WITH RETARD/PILOT OPTION CONFIGURATION, UNLESS DIRECTED OTHERWISE.

NOTE: (BSU-85 FIN) DO NOT ALLOW FIN RELEASE LANYARD TO BE RETRACTED INTO CONDUIT.

Table 1. Aircraft Armament Switches

PANEL	SWITCH	POSITION
MC/HYD ISOL	MC	NORM
NUC WPN SWITCH	NUC WPN	DISABLE (down position)
GND POWER CONTROL	1 2 3 4 EXT PWR	AUTO AUTO AUTO AUTO OFF
LEFT VERTICAL	SELECT JETT JETT (pushbutton)	SAFE off
MASTER ARM CONTROL	MASTER EMERG JETT (pushbutton)	SAFE Yellow/brass ring not visible
ECM CONTROL (NOTE 1) ICMDS (NOTE 2)	AUX REL ECM DISPENSER MODE SEL RWR	NORM OFF OFF STBY OFF
ANTENNA SELECT CONTROL PANEL (NOTES 3 and 4)	ALE-39 RESET	OFF
EMERGENCY JETTISON	(Rear cockpit) EMERG JETT	Yellow/brass ring not visible
ITALD CONTROL (If installed)	INSTM POWER CIRCUIT BREAKER	OFF RESET
AN/ALQ-167 CONTROL (If installed)	PWR	OFF
MAP GAIN CONTROL	IR COOL	(NOTE 5)
COMMUNICATION	WPN VOL control	LOW
FWD/REAR COCKPIT	All other switches	OFF, SAFE, or NORMAL

NOTE

1. 161353 thru 164980
2. 165171 and UP
3. 161353 thru 163175
4. 163427 thru 164980
5. Without AIM-9L/M or with AIM-9X -OFF position, and NORM position with AIM-9L/M.

WEAPON LOADING (Continued)

NOTE: (MK 15 FIN) FOR NONRETARD RELEASE, FIN RELEASE WIRE MUST BE CUT 3 INCHES EACH SIDE OF FIN RELEASE BAND AND ENDS TWISTED TOGETHER OR COTTER PIN MUST BE INSTALLED IN FIN RELEASE BAND LATCH WITH ENDS SPREAD 180° APART.

NOTE: (FMU-139B/B, FMU-152) THE FMU-139B/B AND FMU-152 ELECTRIC TAIL FUZES DO NOT REQUIRE AN ARMING WIRE. FUZE ARMING TAIL WIRE SHOWN IN FIGURES DO NOT APPLY TO THESE FUZES.

NOTE: (RETARD/M904) FIN TO FUZE ARMING WIRE WILL BE INSTALLED UNLESS SPECIFIED OTHERWISE.

- 6. (As applicable) Install/connect arming wire(s) (Figs. 4 through 13)()
- 7. (As applicable) Remove fuze/TDD safety pin/wire/safety clip/cotter pin()
- 8. Install cartridges()

WEAPON LOADING (Continued)

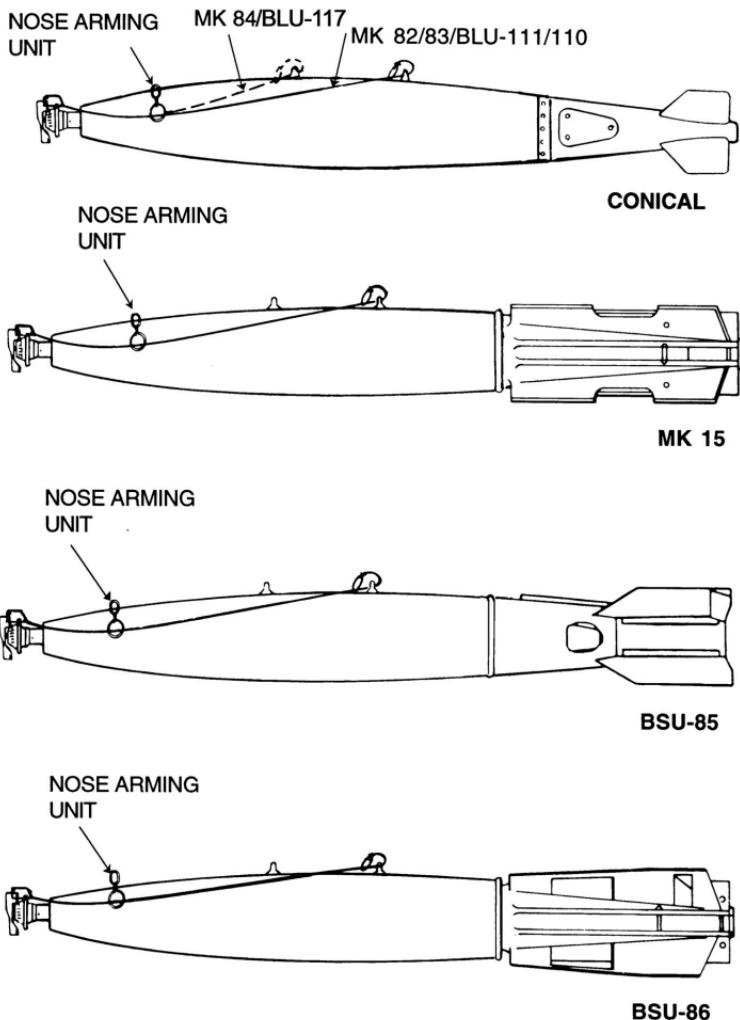


Figure 4. NONRETARD, Mechanical Nose Fuze

WEAPON LOADING (Continued)

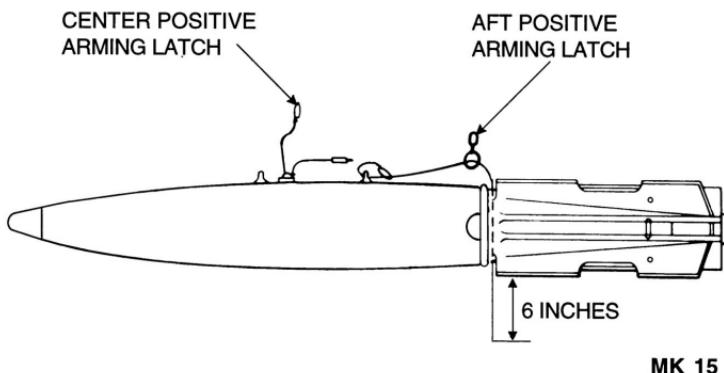
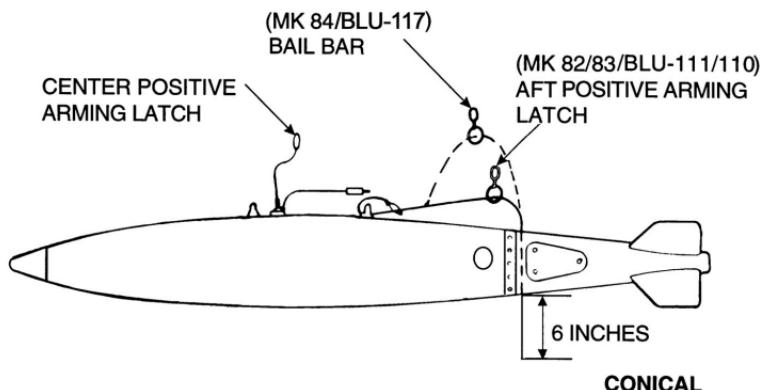


Figure 5. NONRETARD, Electrical Tail Fuze (Sheet 1 of 2)

WEAPON LOADING (Continued)

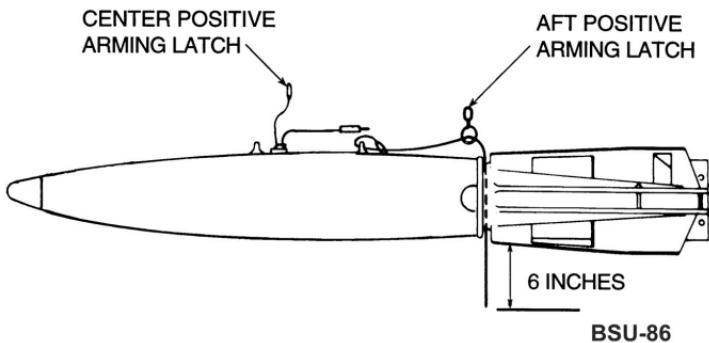
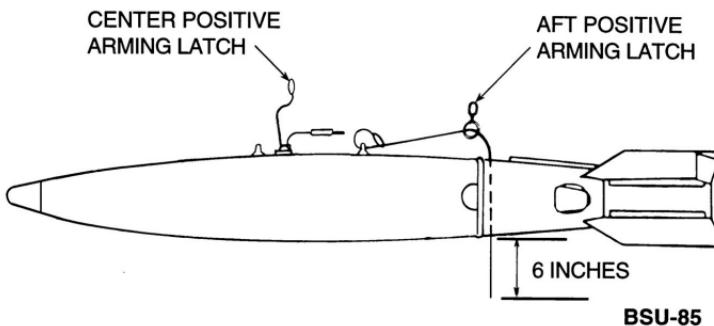
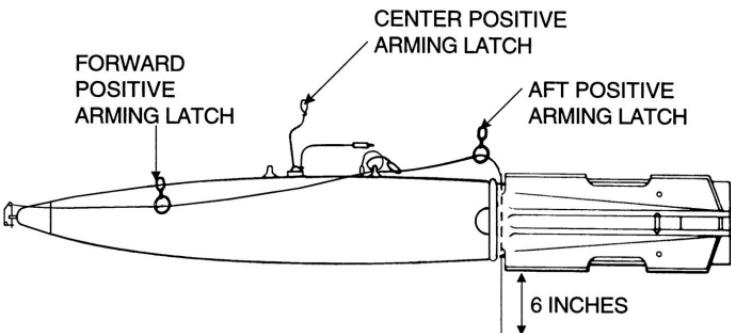
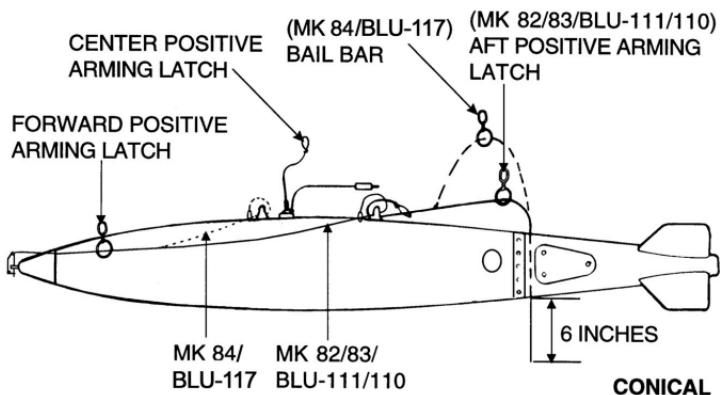


Figure 5. NONRETARD, Electrical Tail Fuze (Sheet 2)

WEAPON LOADING (Continued)

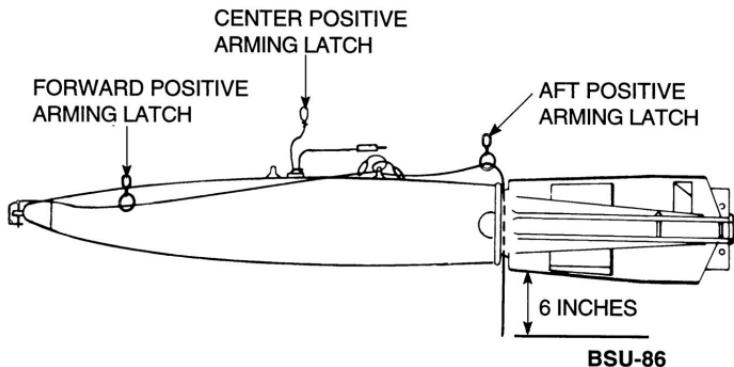
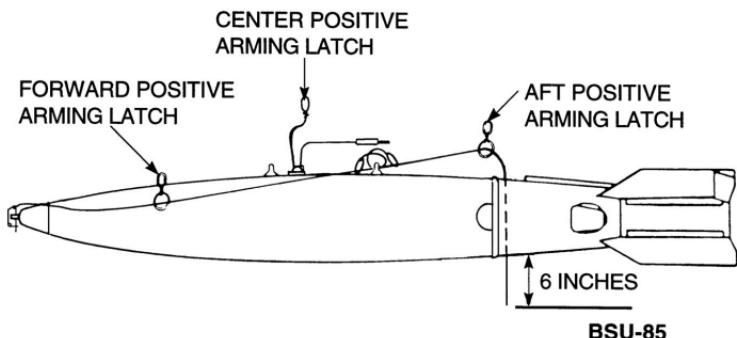
NOTE:

MK 15

**TDD ARMING WIRE WILL NOT BE INSTALLED
UNLESS VT WITH DELAY MODE IS REQUIRED.
WITHOUT ARMING WIRE, SHIPPING SAFETY CLIP
REMAINS INSTALLED, WARNING TAG REMOVED.**

Figure 6. NONRETARD, MK 43 TDD (Mechanical Initiation)
and Electrical Tail Fuze (Sheet 1 of 2)

WEAPON LOADING (Continued)

**NOTE:**

TDD ARMING WIRE WILL NOT BE INSTALLED
UNLESS VT WITH DELAY MODE IS REQUIRED.
WITHOUT ARMING WIRE, SHIPPING SAFETY CLIP
REMAINS INSTALLED, WARNING TAG REMOVED.

Figure 6. NONRETARD, MK 43 TDD (Mechanical Initiation)
and Electrical Tail Fuze (Sheet 2)

WEAPON LOADING (Continued)

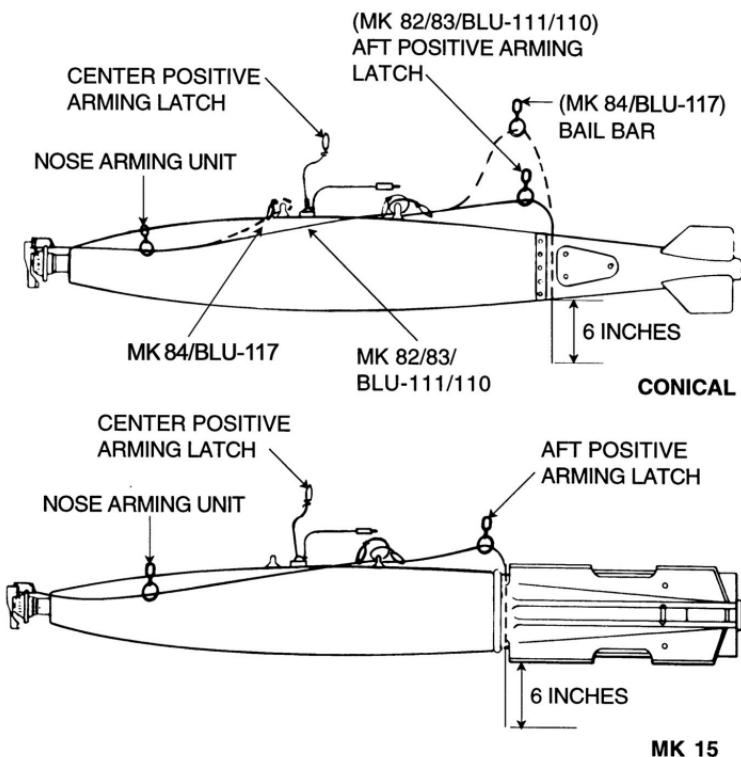


Figure 7. NONRETARD, Mechanical Nose Fuze and Electrical Tail Fuze (Sheet 1 of 2)

WEAPON LOADING (Continued)

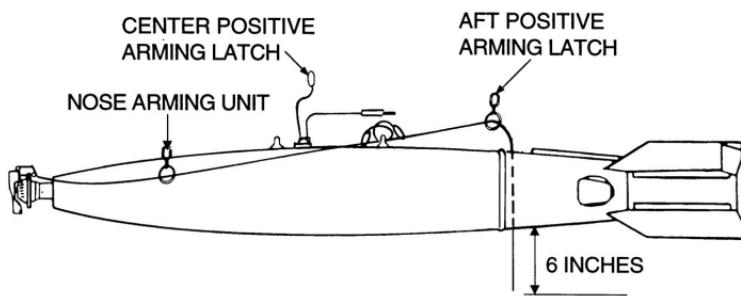
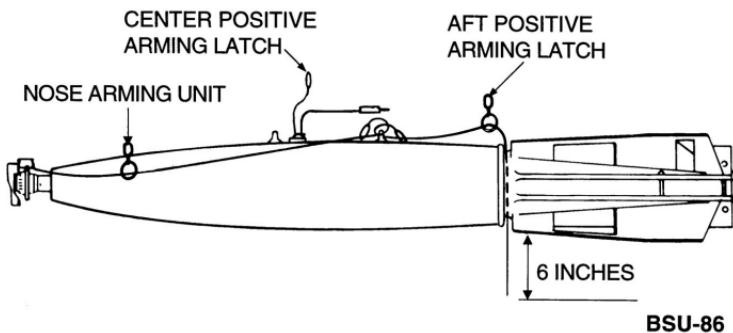


Figure 7. NONRETARD, Mechanical Nose Fuze and Electrical Tail Fuze (Sheet 2)

WEAPON LOADING (Continued)

(BRU-32) CENTER POSITIVE ARMING LATCH
(BRU-33) RIGHT FORWARD SWAYBRACE

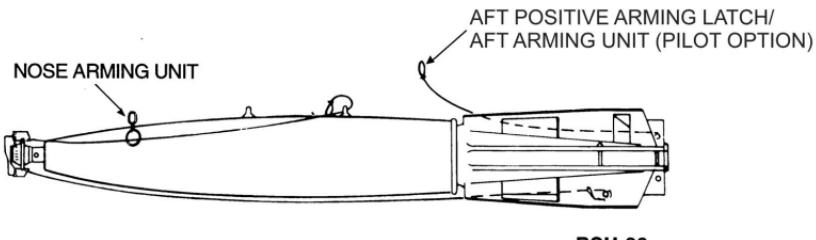
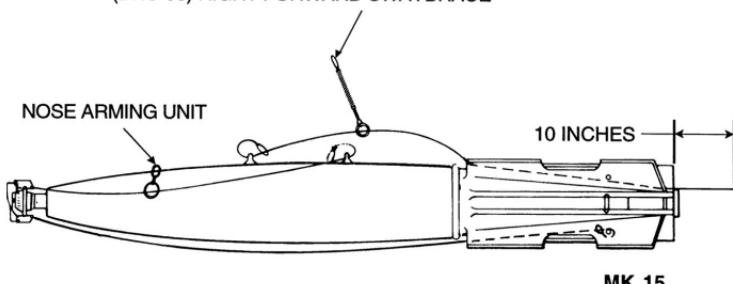
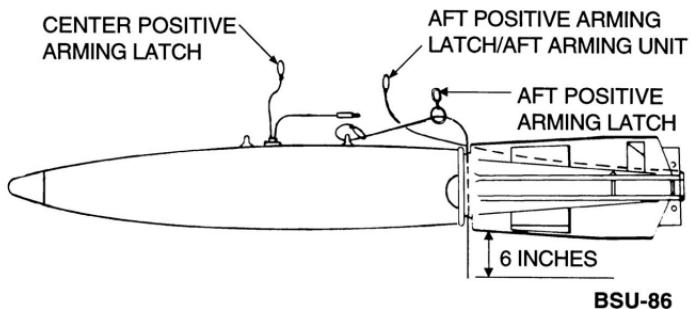
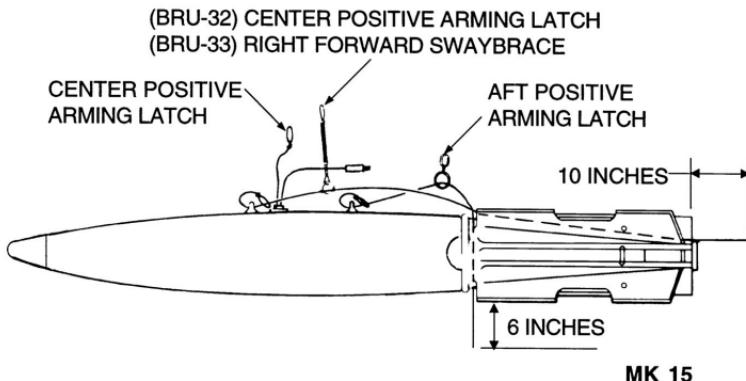


Figure 8. Mk 82/BLU-111-Retard, Mechanical Nose Fuze

WEAPON LOADING (Continued)

**NOTE:**

(BSU-86) PILOT OPTION ZRF ARMING UNIT ONLY.

Figure 9. Mk 82/BLU-111 and BDU 45/B-RETARD,
Electrical Tail Fuze

WEAPON LOADING (Continued)

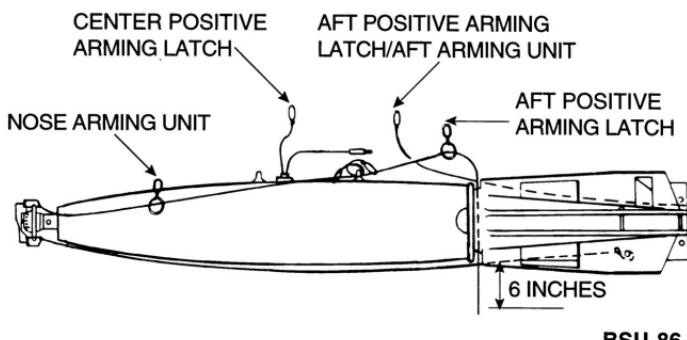
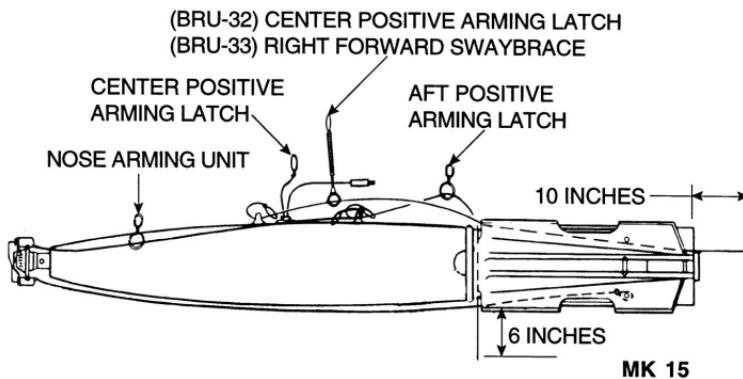
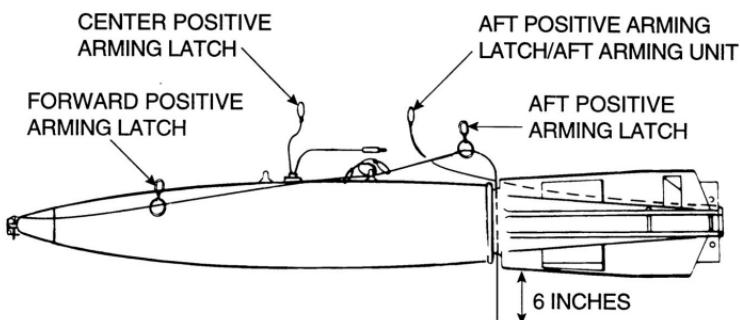
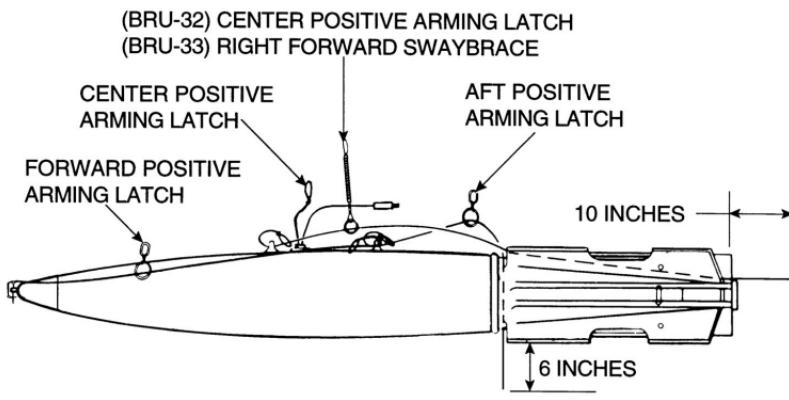
**BSU-86****NOTE:****(BSU-86) PILOT OPTION ZRF ARMING UNIT ONLY.**

Figure 10. MK 82/BLU-111 RETARD, Mechanical Nose Fuze
and Electrical Tail Fuze

WEAPON LOADING (Continued)

NOTE:

(BSU-86) PILOT OPTION ZRF ARMING UNIT ONLY.

NOTE:

**TDD ARMING WIRE WILL NOT BE INSTALLED
UNLESS VT WITH DELAY MODE IS REQUIRED.
WITHOUT ARMING WIRE, SHIPPING SAFETY CLIP
REMAINS INSTALLED, WARNING TAG REMOVED.**

Figure 11. MK 82/BLU-111 and BDU 45/B - RETARD, Mk 43
TDD (Mechanical Initiation) Electrical Tail Fuze

WEAPON LOADING (Continued)

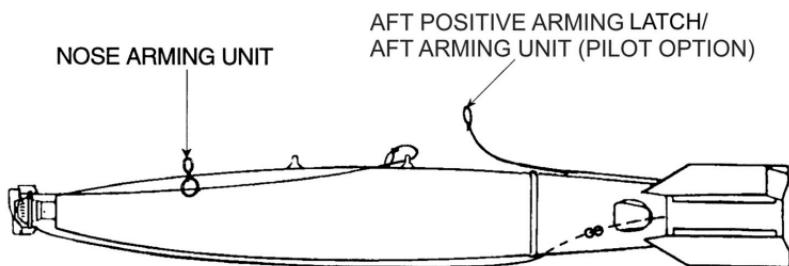
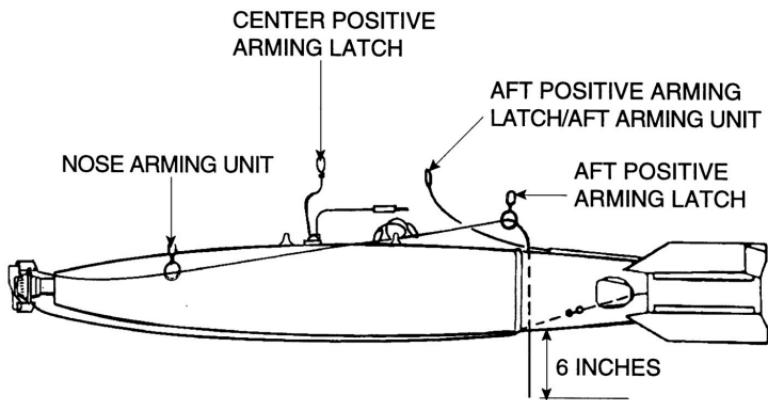
**BSU-85**

Figure 12. MK 83/BDU-110 RETARD, Mechanical Nose Fuze

WEAPON LOADING (Continued)



NOTE:
(BSU-85) PILOT OPTION ZRF ARMING UNIT

Figure 13. Mk 83/BLU-110 RETARD, Mechanical Nose Fuze
and Electrical Tail Fuze

POSTLOADING INSPECTION

1. Armament switches positioned (Table 1)
 2. WEAPON LOADED sign in cockpit
 3. Rack - SAFE
 4. Proper code set in weapons insertion panel (SMP)
 5. Swaybraces seated
 6. (Parent rack) Cartridges installed
 7. BRU-33:
 - a. Adapter harness connected
 - b. Unloaded station suspension hooks open
 - c. Cartridges installed
 8. Arming wire(s)/lanyard installed/connected
 9. (If applicable) Nose fuze arming delay set
 10. (As applicable) Fuze/TDD safety pin/wire/safety clip/cotter pin removed
 11. (Conical Fin) Fuze access cover secured
 12. (If applicable) Fin release wire/lanyard clip installed; safety/cotter pin removed
 13. (Mk 122) Lanyard attached
- 

WEAPON UNLOADING

A. PREPARATION

1. (If applicable) Power removed
2. Aircraft grounded
3. Loaded stations - SAFE
4. Armament switches positioned (Table 1)
5. WEAPON LOADED sign in cockpit
6. (Parent rack) Remove cartridges
7. (BRU-33) Remove cartridges
8. (As applicable) Install fuze/TDD safety pin/wire safety clip/cotter pin
9. (Mk 122) Disconnect lanyard; electrically disconnect

NOTE: (BSU-85 FIN) DO NOT ALLOW FIN RELEASE LANYARD TO BE RETRACTED INTO CONDUIT.

NOTE: (BSU-85/86 FIN) REPLACE LANYARD IN STOWAGE CLIP AFTER DISCONNECTING.

10. (As applicable) Disconnect arming wire(s)/lanyards from aircraft
11. (If applicable) Remove arming wire(s) from fuze(s)/TDD
12. (If applicable) Remove nose fuze/TDD/DSU-33

B. UNLOADING

1. Raise weapon
2. Rotate ground safety handle to UNLOCKED
3. Release rack

[WARNING]

REMOVE ARMING ADAPTER APPROXIMATELY 2 INCHES BELOW RACK.

4. Lower weapon; (if applicable) remove arming adapter from aircraft
5. Continue lowering weapon